Pioneer

DVD PLAYER

DV-525

Operating Instructions







CONGRATULATIONS ON YOUR PURCHASE OF THIS FINE PIONEER PRODUCT.

Pioneer is on the leading edge of DVD research for consumer products and this unit incorporates the latest technological developments.

We are sure you will be fully satisfied with the DVD player.

Thank you for your support.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE [For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

CAUTION: This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Information to User

Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.

CAUTION

- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- The use of optical instruments with this product will increase eye hazard.

[For Canadian model]

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

[Pour le modèle Canadien]

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

THE POWER SWITCH IS SECONDARY CONNECTED AND THEREFORE DOES NOT SEPARATE THE UNIT FROM MAINS POWER IN THE STANDBY POSITION.

[For Canadian model]

CAUTION: TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

• This player is not suitable for commercial use.

IMPORTANT



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the product is operated.

RETAIN INSTRUCTIONS — The safety and operating instructions should be retained for future reference.

HEED WARNINGS — All warnings on the product and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

CLEANING — Unplug this product from the wall outlet before cleaning. The product should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

ATTACHMENTS — Do not use attachments not recommended by the product manufacturer as they may cause hazards.

WATER AND MOISTURE — Do not use this product near water — for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

ACCESSORIES — Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

CART — A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.



VENTILATION — Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to

POWER SOURCES — This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

LOCATION – The appliance should be installed in a stable location.

NONUSE PERIODS – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

GROUNDING OR POLARIZATION

- If this product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other), it will fit into the outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- If this product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin, it will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

OUTDOOR ANTENNA GROUNDING — If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrodes, and requirements for

the grounding electrode. See Figure A.

LIGHTNING — For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

POWER LINES — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

OVERLOADING — Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

OBJECT AND LIQUID ENTRY — Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

SERVICING — Do not attempt to service this

SERVICING — Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

DAMAGE REQUIRING SERVICE — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

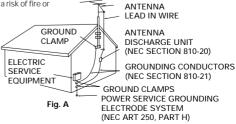
- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the product.
- If the product has been exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the product has been dropped or damaged in any way.
- When the product exhibits a distinct change in performance — this indicates a need for sorvice.

REPLACEMENT PARTS — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

SAFETY CHECK — Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

WALL OR CEILING MOUNTING — The product should not be mounted to a wall or ceiling.

HEAT — The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.



Features of This Player

Compatible with DVD, Video CD and CD formats

DVD, Video CD and CD discs that display the logos shown below can be played back on PIONEER DVD players. For more information on discs compatible with this player, refer to the table below.

Types of playable discs and their marks	Diameter/ Playable sides		Playback time
DVD VIDEO	DVD VIDEO		Digital audio Digital video (MPEG 2)
DVD VIDEO	12 cm (5in.)/ single-sided	1 layer 2 layer	133 min. 242 min.
	12 cm (5in.)/ double-sided	1 layer 2 layer	266 min. 484 min.
	DVD VIDEO*		Digital audio Digital video (MPEG 2)
	8 cm (3 in.)/ single-sided	1 layer 2 layer	41 min. 75 min.
	8 cm (3 in.)/ double-sided	1 layer 2 layer	82 min. 150 min.
VIDEO CD COMPACT DIGITAL VIDEO	VIDEO CD 12 cm (5 in.)/ single-sided		Digital audio Digital video (MPEG 1) Max. 74 minutes
	VIDEO CD single 8 cm (3 in.)/ single-sided		Digital audio Digital video (MPEG 1) Max. 20 minutes
CD	CD	(a)	Digital audio
COMPACT OFF DIGITAL AUDIO	12 cm (5 in.)/ single-sided		Max. 74 minutes
	CD single	(<u>(</u>)	Digital audio
	8 cm (3 in.)/ single-sided		Max. 20 minutes

The disc format logos shown above are found on disc labels or on disc jackets.

- To prevent malfunction, do not use an 8 cm (3 in.) adaptor (for CDs).
- Discs other than the ones indicated above cannot be played on this unit.
- DVDs that have incompatible region numbers, DVD-Audio, DVD-ROM, and CD-ROM cannot be played on this unit. The region number of the player can be found on the rear panel.

Compatible with a wide range of DVD digital audio output formats





DVDs are recorded in one of four types of digital audio formats (as of October 1998). The digital audio output jacks of this player output Dolby Digital*, DTS**, MPEG, and linear PCM digital bitstreams.

This player has a function that converts Dolby Digital and MPEG audio formats into the linear PCM format. This allows playback of DVDs recorded in Dolby Digital and MPEG without the need for a decoder.

Easy setup and adjustment using on-screen menus

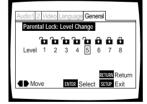
Press **SETUP** on the remote control to open the Setup screen and you'll find setting up the system easy to do with on-screen menus conveniently organized and arranged. Below are just a few examples.



Select the digital output formats compatible with your system in the **Audio 1** menu (page 21).

Select the type of TV screen you are using and the preferred screen format you'd like to use when watching DVDs in the **Video** menu (page 22).





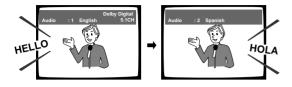
Select a parental lock level (user restriction level) to prevent children from viewing undesirable material in the **General** menu (page 42).★

- * Manufactured under license from Dolby Laboratories. "Dolby", "AC-3" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works, © 1992-1997 Dolby Laboratories, Inc. All rights reserved.
- ** "DTS" and "DTS Digital" are trademarks of Digital Theater Systems, Inc.
- ☆This mark indicates this may not be possible with certain discs.

Wide range of DVD viewing options

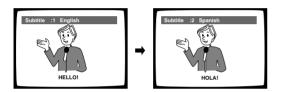
Multiple Languages (page 29) ☆

You can select the language on when watching movies or other media that have multiple language and/or audio soundtracks recorded on them.



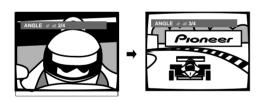
Multi-Language Subtitles (page 28)☆

You can select a subtitle language or turn subtitles off when watching movies or other media with subtitles available.



Multi-Angle (page 36) ☆

You can view scenes from different camera angles when watching movies or other media with multiple angle playback available.



☆This mark indicates this may not be possible with certain discs.

Energy-saving design

This unit is designed to use minimal electricity when this player is in standby mode. Regarding the amount of power consumed in standby mode, refer to "Specifications" on page 57.

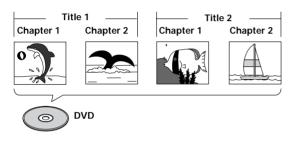
This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Differences in Disc Composition

DVD

DVDs are divided into units referred to as titles, and titles are divided into chapters. A DVD which contains a movie may have only one title with many or no chapter divisions. Karaoke DVDs may have many titles, assigning a title to each song on the disc. Menu screens do not belong to any title.

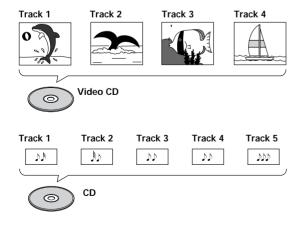
DVD player functions generally apply to titles on a disc or chapters within a selected title. The player functions available may also vary from title to title, depending on the disc. When discs have a unique title division, it should be noted that search and program functions may be affected.



Video CD/CD

Video CDs and CDs are divided into units referred to as tracks (Video CD tracks may also be referred to as scenes). One song generally corresponds to one track. Some tracks are further divided into units referred to as indexes. Video CDs with PBC (Playback Control) also contain menus recorded on the disc which enable easy access to the contents of the disc.

When played back on a DVD player, both Video CDs and CDs are considered to be a single title, regardless of the number of tracks.



How to Proceed in This Manual

DVD is an incredible format that presents the highest quality digital audio and video available today. The amount of information that can be recorded onto a DVD disc is remarkable, allowing it to offer numerous functions and features available with no other format.

Because using the DVD player and DVDs may be confusing at first, following the order below should help you get through the important stages of getting set up so you can start using your player as soon as possible.

Get familiar with the player.

Refer to the section "Before Using" on page 8 to confirm that all the accessories were included with the player. If you are new to DVD, it might be beneficial for you to go through the "Names and Functions" section starting on page 10 to get familiar with the parts and buttons on the main unit and remote control as they will be referred to throughout this manual.

There is also a list of terms that can be found on page 54 if you are having trouble understanding some of the terminology associated with DVD.

Make the necessary connections.

No entertainment system seems to be set up exactly the same way. The "Making Connections" section starting on page 15 shows how video and audio connections may be made to suit your home entertainment system.

Set up the necessary player menus.

Before you can begin to enjoy the benefits of the DVD format, you should set up the player to output the video and audio information that corresponds to your system. The section "Setting Up the Player" starting on page 19 explains how to use the Setup screen menus as well as how to make the necessary initial adjustments. The Setup screen menus are used in a number of functions. Learning the procedure for operating the menus will make using this player much easier and more enjoyable.

Play a disc.

When all the connections and setups have been made, you are ready to play a DVD, Video CD, or CD with the player. The section "Getting Started Using Your DVD Player" starting on page 24 outlines the basic player operations.

Enjoy the many features available.

Once you are comfortable using the basic player functions, you are ready to take advantage of the various options DVD and this player have to offer. The section "Advanced Functions" starting on page 33 describes how to use the features available on many DVDs.

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Before Using

Checking Accessories

Please confirm that the following were received with the player.

Audio cord



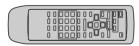
Video cord



Power cord (except for U.S. and Canadian models)



Remote control unit



AA/R6P batteries

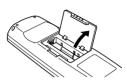


Operating instructions (this manual)

Preparing the Remote Control

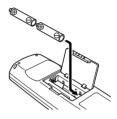
Inserting batteries into the remote control

While pushing the tab on the battery compartment cover toward the center of the remote, pull out in the direction indicated by the arrow.

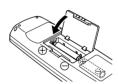


2 Insert batteries.

Make sure to match the plus (+) and minus (-) polarity guides on the batteries with the marks inside the battery compartment.



3 Close the cover.

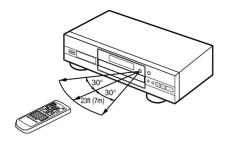


Notes

- Do not mix old and new batteries.
- When replacing batteries, use all new batteries.
- When not using the remote control for a long period of time (over 1 month), remove the batteries to avoid possible damage from battery corrosion. If battery leakage occurs, wipe the battery liquid from the battery component, then insert new batteries.

Remote control operation

When operating the remote control, point it at the remote sensor () located on the player's front panel. The remote control can be used up to 23 feet (7 m) from the player and within a 30° angle on each side of the sensor.

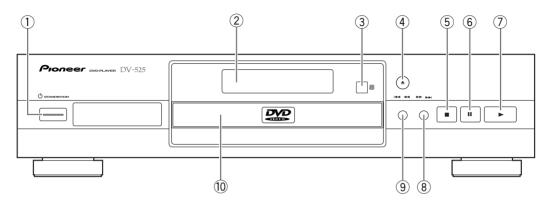


Notes

- Exposing the remote sensor to direct sunlight or strong light may cause faulty operation.
- If the CONTROL IN jack on the player's rear panel is connected to the CONTROL OUT jack of another component, point the remote control at the other component to operate the player. Operation will not be possible when pointed at this player (page 18).

Names and Functions

Front Panel



1 & STANDBY/ON switch

Press to switch the player on or to put in standby (pages 24 and 27).

2 Display window

Displays system information (page 11).

3 Remote sensor

Point the remote control toward the remote sensor to operate the player (page 9).

(4) ▲ (open/close) button

Press to open and close the disc tray (pages 24 and 27).

⑤ **■** (stop) button

Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it stopped. Pressing twice causes the disc to return to the beginning of the disc if playback starts again (page 27).

6 II (pause) button

Press during playback to pause. Press again to resume playback (page 34).

⑦ ► (play) button

Press to start or resume playback (pages 24 and 27).

(8) ►► ►► (forward) button

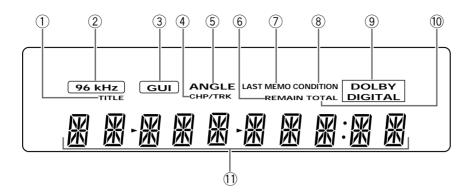
Press to advance to chapters/tracks. Press and hold to perform fast-forward scanning (page 26).

Press to go back to previous chapters/tracks. Press and hold to perform reverse playback scanning (page 26).

10 Disc tray

When loading a disc, place discs in the disc tray with the label side facing up (pages 24 and 27).

Display Window



1 TITLE indicator

Indicates a title number is being displayed.

2 96 kHz indicator

Indicates play of a disc outputting an audio signal with a sampling frequency of 96 kHz.

(3) GUI indicator

Indicates an on-screen menu operation is being performed (page 19).

(4) CHP/TRK indicator

Indicates a chapter or track number is being displayed.

(5) ANGLE indicator

Indicates Multi-Angle playback is in progress (page 36).

6 REMAIN indicator

Indicates that the remaining playback time of a title or chapter/track is being displayed.

7 LAST MEMO indicator

Indicates the Last Memory location is recorded in memory for the currently loaded DVD or Video CD (page 44).

(8) CONDITION indicator

Indicates that Condition Memory settings are memorized for the currently loaded DVD (page 45).

9 DOLBY DIGITAL indicator

Indicates Dolby Digital audio playback.

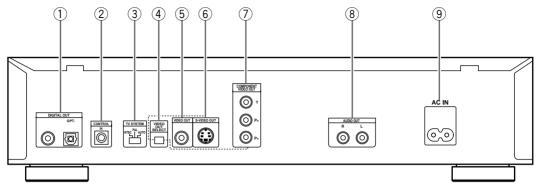
10 TOTAL indicator

Indicates that the disc in the player is stopped and **DISPLAY** has been pressed (page 47).

11 Counter display

Displays the playback mode, type of disc, title and chapter/track numbers, playback time, etc.

Rear Panel



(The TV SYSTEM switch and AC IN power cord connection terminal are not present on U.S. and Canadian models)

1 DIGITAL OUT jacks (coaxial, optical (OPT.))

Use to output the digital audio signal recorded on discs. You can output the digital signal via either coaxial or optical output jack to an AV amplifier or receiver (page 16).

2 CONTROL IN jack

Use to connect this player to another component bearing the Pioneer mark. This lets you control this unit as though it were a component in a system. Player operations are then performed by pointing the remote control at the component that the player is connect to (page 18).

(3) TV SYSTEM switch

Use to change the TV signal mode to either PAL or NTSC according to the type of TV and disc to be used. When the switch is in the AUTO position, the player outputs the format on the disc as is (page 18). (The TV SYSTEM switch is not present on U.S. and Canadian models.)

(4) VIDEO OUT SELECT switch

Use to set which output is used to output the video signals. Select either video/S-video or component video signal output depending on the connections you make (page 17).

(5) VIDEO OUT jack

Connect to the video input on a TV or monitor or AV amplifier or receiver with video input capability. When using this output, be sure to set VIDEO OUT SELECT to the left position (pages 15 and 17).

6 S-VIDEO OUT jack

If your TV or monitor has an S-video input, clear picture reproduction is possible by connecting the player to your TV or monitor via the S-Video jack. When using this output, be sure to set VIDEO OUT SELECT to the left position (page 17).

(7) COMPONENT VIDEO OUT jacks

If your projection monitor, projector or similar component has component video inputs, you can produce a higher quality picture on your projection monitor or projector by connecting to the component video outputs on this unit. When using these jacks, be sure to set VIDEO OUT SELECT to the right position (page 17).

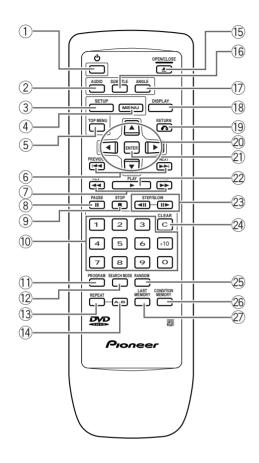
(8) AUDIO OUT jacks

Use to output two-channel audio (analog) to the audio stereo inputs on a TV or stereo amplifier. If you are connecting to a receiver that has both digital and analog input jacks for DVD player connection, it may be beneficial to make both connections (pages 15 and 16).

(9) AC IN power cord connection terminal

Use to connect the power cord to the wall outlet (page 15). (The AC power cord of the U.S. and Canadian models is built into the player.)

Remote Control



(Buttons indicated with * are used for menu operation.)

① 🖒 (standby/on) button

Press to switch the player on or to put in standby (pages 24 and 27).

2 AUDIO button

Press repeatedly to select one of the audio languages and/or audio formats programmed on a DVD (page 29).

For Video CD and CD, each press changes the audio output as follows.

③ SETUP button*

Press when the player is in either play or stop mode to open and close the Setup screen (page 19).

(4) MENU button*

Use to display or close the DVD menu screen (page 25).

(5) TOP MENU button*

Press to call up the top menu programmed on the DVD. Depending on the DVD, the top menu may be identical to the DVD menu (page 25).

6 PREVIOUS I◄◄/NEXT ►►

During playback, press **PREVIOUS** I ◄ to go back to a previous chapter/track and **NEXT** ► I to advance to the next chapter/track (page 26).

During playback of DVD and Video CD, press **FWD** ►► to perform fast forward scanning. Press **REV** ← to perform fast reverse scanning of DVD and Video CD. When a CD is loaded, audio scanning is performed (page 26).

(8) PAUSE II button

Press to pause playback of a disc. Press again to resume playback (page 34).

9 STOP ■ button

Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it was stopped. Pressing twice causes the disc to return to the beginning of the disc when playback starts again (page 27).

(10) Number buttons (1-9, 0, +10)*

Use to perform direct title and chapter/track searches, and to input numerical values (pages 25, 35, and 39).

1 PROGRAM button

You can program titles, chapters, or tracks to play back in a desired order. Programs can be a maximum of 24 steps. Additionally, DVD programs for up to 24 discs can be stored in the player's memory for future use (page 39).

(12) SEARCH MODE button

Press to perform a title, chapter/track or elapsed time search (page 35).

13 REPEAT button

Press once to repeat playback of current chapter/ track. Press twice to repeat playback of current title (page 37).

(14) A-B button

Press at the beginning and end of the section you want to repeat or to mark a location you want to return to (page 37).

(15) OPEN/CLOSE ▲ button

Press to open or close the disc tray (pages 24 and 27).

16 SUBTITLE button

Press repeatedly to select one of the subtitle languages programmed on a DVD or to turn the subtitles off (page 28).

(17) ANGLE button

Some DVDs are recorded with various camera angle playback options. Press **ANGLE** repeatedly to display different camera angles (page 36).

18 DISPLAY button

Press during playback to display statistical disc information. Press repeatedly to display different information (page 46).

19 RETURN 3 button*

Use to go one menu back (current settings are maintained). Use **RETURN** & when you do not want to change the option setting in a menu (pages 19, 25, and 42).

20 Cursor buttons (◄/►/▲/▼)*

Use to move through the options on menu screens and to change settings (pages 19, 25, 39 and 42).

21) ENTER button*

Use to implement settings selected with the cursor buttons or to set items highlighted in a menu (pages 19 and 25).

22 PLAY ► button

Press to start disc playback (pages 24 and 27).

23 STEP **◄II/II** buttons

Press STEP II► during playback to view slow playback. In pause mode, press STEP II► to advance DVDs and Video CDs frame by frame and STEP ◄II to back up a few frames at a time (page 34).

24 CLEAR button

Works in conjunction with a number of player functions. Use to cancel repeat and random playback, and to edit programs (pages 37, 38 and 39).

25 RANDOM button

Press to play chapters/tracks in random order (page 38).

26 CONDITION MEMORY button

You can store in memory the settings for up to 15 DVDs. Press **CONDITION MEMORY** during DVD playback to memorize the settings (page 45).

27) LAST MEMORY button

You can resume DVD or Video CD playback from the point you last watched even if the disc is removed from the player. Press **LAST MEMORY** during playback to set a Last Memory point. When you want to resume playback of that disc, press **LAST MEMORY** in the stop mode and playback starts from the memorized point. Last Memory locations can be stored for up to 5 DVDs (or 4 DVDs and 1 Video CD)(page 44).

Making Connections

Connecting Your DVD Player

Unlike any other audiovisual media format, DVD offers a wide array of audio and video output options which allows playback to be enjoyed in any number of system configurations from a standard TV with stereo audio input to a home theater system with a projection monitor and full surround sound capabilities.

Connection Guide

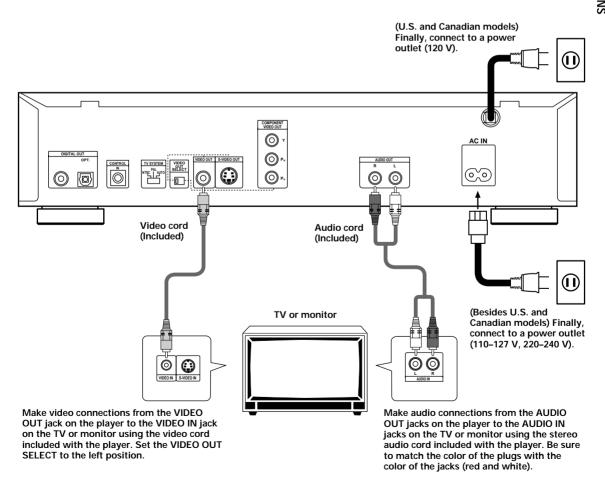
The illustration on this page shows the basic setup using the audio and video cords included with this player. Use this illustration as a guide to setting up your home system.

An explanation of each type of audio and video connection available can be found on the following pages. To determine the best audio and video connection setup for your system, refer to the manuals supplied with the components you are making connections to.

In addition to making physical connections to your TV or monitor, it is also necessary to assign the TV screen size in the Setup screen **Video** menu corresponding to whether you are using a wide screen or standard size TV or monitor (page 22).

Notes

- When making connections to this unit or when changing connections, check that the unit is in standby by pressing O STANDBY/ON, and unplug the power cord from the power outlet.
- The analog video output on this player uses copy protect circuitry to prevent the video playback on DVDs from being copied. If you connect the player to a TV via a VCR, or record and play back the contents of a disc with a VCR, the playback picture may not be normal.



Audio Connections

This player features two digital (optical and coaxial) and also analog audio output formats.

Digital Audio Connections:

You can enjoy the digital audio recorded on DVD discs from both optical digital and coaxial digital output jacks.

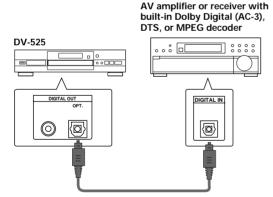
When making digital audio connections, do not make connections from both the coaxial and optical digital outputs to the same component.

When a DVD recorded in Dolby Digital, DTS, or MPEG is loaded, noise will be output if you have made connections via the digital audio jacks to a receiver or amplifier that cannot decode a Dolby Digital, DTS, or MPEG digital bitstream. In this case, be sure to set the Dolby Digital and MPEG output setting to "PCM" and set DTS output to "Off" in the **Audio 1** menu on the Setup screen. Use the **Audio 1** menu to select the type of digital output most appropriate for the system you are using (page 21).

DIGITAL OPTICAL OUT

The digital signal is transmitted as light pulses through a fiber-optic cable.

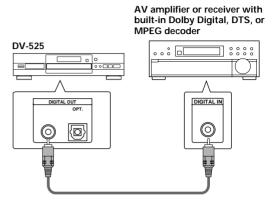
- Use to connect to an AV amplifier or receiver with built-in Dolby Digital (AC-3), DTS, or MPEG decoder.
- Use a fiber-optic cable (not supplied) to connect the digital optical output on the player to the digital optical input on an AV amplifier or receiver.



DIGITAL OUT (Coaxial)

The digital signal is transmitted electronically through a coaxial cable.

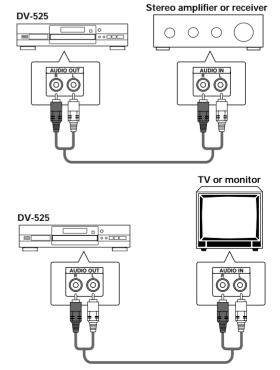
- Use to connect to an AV amplifier or receiver with built-in Dolby Digital, DTS, or MPEG decoder.
- Use a coaxial cable (not supplied) to connect the coaxial digital output on the player to the coaxial digital input on an AV amplifier or receiver.



Analog Audio Connection:

AUDIO OUT

- Make analog audio connections to a stereo amplifier or receiver.
- Analog audio connections can also be made to a TV or monitor with stereo input jacks.
- Use the supplied audio cable to connect the AUDIO OUT on the player to the audio input on the stereo amplifier or receiver.
- When making analog audio connections, be sure to match the color of the plugs with the color of the jacks (red and white).



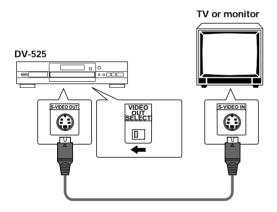
Video Connections

This player features S-video, composite video, and component video output possibilities. Check the manual supplied with your TV or monitor to determine the best possible connection for your system.

In addition to making physical connections to your TV or monitor, it is also necessary to assign the TV screen size in the Setup screen **Video** menu corresponding to whether you are using a wide screen or standard size TV or monitor (page 22).

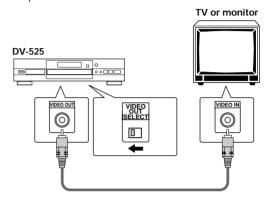
S-VIDEO OUT

- Make S-video connections to a TV or monitor with S-video input to produce a high quality video image.
- Use an S-video cable (not supplied) to connect the output on the player to S-video input on the TV or monitor.
- When making S-video connections, be sure to set the VIDEO OUT SELECT switch on the rear panel of the player to the left to assign S-video output.



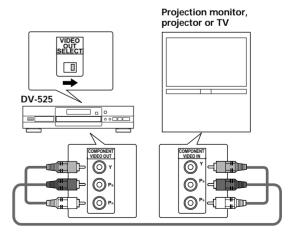
VIDEO OUT

- Make composite video connections to a standard TV or monitor with a video input jack.
- Use the supplied video cable to connect the video output jack on the player to the video input on the TV or monitor.
- Be sure to match the color of the plug with the color of the jack (yellow).
- When making video connections, make sure to set the VIDEO OUT SELECT switch on the rear panel of the player to the left to assign composite video output.



COMPONENT VIDEO OUT

- Make component video connections to a projection monitor, projector or TV with component inputs to produce a higher quality video image.
- Use component video cables or 3 video cords (not supplied) to connect the COMPONENT VIDEO OUT jacks on the player to the component jacks on the monitor.
- When making component video connections, make sure to set the VIDEO OUT SELECT switch on the rear panel of the player to the right to assign component video output.



TV SYSTEM switch (except for U.S. and Canadian models)

Video output changes as follows according to the playback disc's recorded format.

NTSC → PAL, PAL → NTSC conversion is possible on Video CDs. PAL → NTSC conversion is not possible on DVDs. When the TV SYSTEM switch is set to the AUTO position, the disc's format will be output as is. When a CD or disc is not loaded, the previous video output format will be selected.

Disc	Disc Output format			
Туре	Format	Position of TV SYSTEM switch		
		NTSC	PAL	AUTO
DVD	NTSC	NTSC	MOD. PAL	NTSC
	PAL	·	PAL	PAL
Video CD	NTSC	NTSC	MOD. PAL	NTSC
	PAL	NTSC	PAL	PAL
CD, No disc		NTSC	PAL	NTSC or PAL

About MOD. (Modulation) PAL

SHRINK

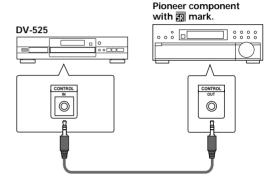
Most models of the newly developed countdown PAL TV system detect 50 Hz (PAL)/60 Hz (NTSC) and automatically switch vertical amplitude, resulting in a display without vertical shrinkage.

If your PAL TV does not have a V-Hold control, you
may not be able to view NTSC disc because the
picture may roll. If the TV has a V-Hold control, adjust
it until the picture stops rolling. On some TVs, the
picture may shrink vertically, leaving black bands at
the top and bottom of the screen. This is not a
malfunction; it is caused by the NTSC → PAL
conversion.

System Control Connections

Using a commercially available cord with a mini plug (3.5 mm dia. with no resistance) to connect this player's CONTROL IN jack to the CONTROL OUT jack of another PIONEER component bearing the mark, you can control the player as though it were a component in a system (system control).

- If you connect for system control, you cannot operate the player directly. Point the remote control unit at the component (AV amplifier, etc.) connected to the CONTROL OUT jack to operate.
- When controlling as a system, be sure to make a connection to the amplifier using an audio or video cord, even when using only digital components.
- For details, refer to the operation manuals of the connected components.



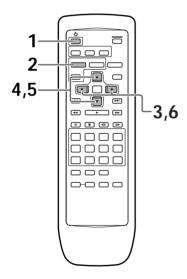
Setting Up the Player

Using the Setup Screen Menus

The procedure on this page describes how to operate the menus on the Setup screen. These menus are used to set and adjust a number of system settings. The various functions that can be adjusted are covered throughout this manual. The procedure on this page provides a basic outline for using the Setup screen menus.

When setting up for the first time

Some DVDs start playing automatically when loaded in the player. It is therefore recommended to set the **Audio 1** menu options (if digital audio connections have been made) and **Video** menu options before loading a DVD for the first time. If a DVD has been loaded, be sure to press **STOP** before proceeding.



- 1 Press & to turn the player on.
- 2 Press **SETUP**.
 The Setup screen appears.

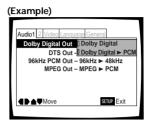


3 Use the cursor buttons (◄/►) to select the menu you want.

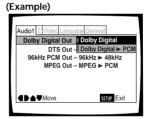
As each menu is selected with the cursor, the settings appear below the menu heading.

4 Press the cursor button (▼) to enter the menu.

The top item within the menu becomes highlighted.

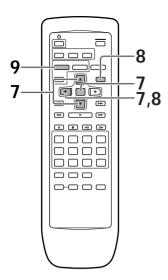


- 5 Use the cursor buttons (▲/▼) to select the setting you want to change.
 - The options available for each setting appear to the right when the setting is selected. The current setting appears with the setting indicator lit.
- **6** Press the cursor button (►) to enter the setting options.



- Not all menu options can be changed while a disc is playing. In these cases, the options appear grayed out on the screen and cannot be adjusted. To change these settings, press STOP ■ first before pressing SETUP.
- Operating the menu after pressing STOP may cancel the resume function.
- Some menu options are not immediately effective if set while a disc is playing. To make these settings effective, stop playback and then start again, or change the settings while the disc is stopped.

continued



- 7 Use the cursor buttons (▲/▼) to select a new setting and press ENTER to set the new setting in memory. Press RETURN → or the cursor button (◄) to exit the options without making any changes.
- 8 Press **RETURN** ♣ or the cursor button (◄) to go back to the main menu bar to select another menu.
- **9** Press **SETUP** to close the Setup screen. The Setup screen closes.

How to interpret the setting indicator colors in the Setup screen menus

When setting up the system, or when making adjustments, it is convenient to know what settings are applicable to the different disc formats. When the settings appear for each menu option, the currently selected setting appears with the setting indicator highlighted in one of three colors: blue, green or yellow. These colors correspond to what formats the menu option effects as shown in the table below.

Color of indicator	Disc format(s)	
Blue	DVD only	
Yellow	DVD / Video CD	
Green	All compatible formats	

Note

If a setting applicable only to DVDs is changed while a Video CD or CD is loaded, a blue DVD icon appears in the upper right hand corner of the screen to indicate that the setting is not applicable to the currently loaded disc. The setting will be effective the next time a DVD is loaded.

Changing to the Setup Screen "Expert" Menu Mode

The Setup screen menus are divided into two levels, "Basic" and "Expert", to make this unit more convenient to operate for different levels of users. The "Basic" menu mode contains functions that may be considered necessary for the basic operations of this player. The "Expert" menu mode adds to the "Basic" menu mode additional functions of the player that can be adjusted to further personalize performance of the player. Though it doesn't require an expert to use the "Expert" menu mode, selecting the "Basic" menu mode may make setting up easier to do.

In this manual, functions that are contained in the "Expert" menu mode are identified by the Expert icon. Make changes to the [Setup Menu Mode] setting in the Setup screen **General** menu.



Settings: Expert Basic*

* Factory setting

Setting the Digital Audio Output To Be Compatible with Your AV Components - DVD

This player is capable of digital audio output for Dolby Digital, DTS, MPEG, and signals with a sampling rate of 96 kHZ. Make settings in the Setup screen **Audio 1** menu to reflect the capabilities of the components that you have made digital connections to.

Note

If you have made only stereo line connections (analog) using the supplied audio cord, it is not necessary to make any changes in this menu.

Dolby Digital Out

This player is capable of outputting the Dolby Digital surround sound audio signal. When the player is connected to an AV component that has a built-in Dolby Digital decoder, select "Dolby Digital". This player can also convert the Dolby Digital signal to a digital Linear PCM signal, the same digital signal output from a CD. Select "Dolby Digital ► PCM" when you have made connections to an amplifier or receiver with a Dolby Pro Logic decoder or a Digital Analog Converter (DAC).



Settings: **Dolby Digital* Dolby Digital ► PCM**

*Factory setting

DTS Out

This player is capable of outputting DTS digital audio for DVDs recorded in DTS. When this player is connected to an AV component that has a built-in DTS decoder, select "DTS". If your system is not equipped to decode DTS, select "Off". Refer to the operating instructions supplied with your audio components if you are unsure about compatibility with DTS.



Settings: Off*
DTS

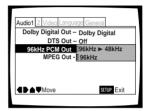
* Factory Setting

Notes

- If you have made digital audio connections to component(s) not equipped to decode the DTS digital bitstream, be sure to select "Off". If a DTS signal is output to an AV component without decoding capabilities, the output is digital noise that could potentially cause damage to your speakers.
- The digital output of DTS CDs is not affected even when "Off" is selected. If the digital signal of a DTS CD is output to an AV component without decoding capabilities, the output is digital noise that could potentially cause damage to your speakers.

96 kHz PCM Out

This player is capable of outputting digital signals with a sampling frequency of 96 kHz. If you have made connections to a component capable of processing this signal rate, select "96 kHz" for the signal to be output as is. As some components are incapable of processing digital signal input with sampling rates of 96 kHz, selecting "96 kHz ► 48 kHz" compresses the signal to a standard signal with a sampling rate of 48 kHz.



Settings: **96 kHz** ► **48 kHz* 96 kHz**

* Factory Setting

MPEG Out

This player is capable of outputting the MPEG digital bitstream. When the player is connected to an AV component that has a built-in MPEG decoder, select the "MPEG" setting. Otherwise, select "MPEG ► PCM" to convert the digital signal to the PCM signal, the digital signal output from a CD.



Settings: MPEG

MPEG ► PCM*

* Factory Setting

Setting the TV Screen Size

The width-to-height ratio of conventional TVs is 4:3, while the width-to-height ratio of wide screen and high-definition TVs is 16:9. This width-to-height ratio is called the aspect ratio.

When viewing software recorded in different aspect ratios, the image's height to width ratio can be switched to match the TV or monitor being used.

Make changes to the TV screen size in the [TV Screen] setting in the Setup screen **Video** menu.



Settings: 4:3 (Letter Box)

4:3 (Pan & Scan) 16:9 (Wide)*

* Factory Setting

Notes

- Whether the aspect can be switched or not depends on the disc. Please refer to the information written on the disc jacket, etc.
- Some discs may not include the screen format selected in the [TV screen] setting. When this occurs, the standard TV screen format available on the disc is automatically selected.

Differences in screen sizes and DVD formats

The number of screen size formats currently available can be somewhat confusing. If set incorrectly, the video presentation may not appear as it should. The following diagrams and descriptions are intended to help you set your TV screen size in a way that will allow you to fully enjoy the digital video of DVD.

The settings in the [TV Screen] setting are perhaps most applicable when the DVD you are watching is programmed in the wide screen format. If you have a standard TV, select either "4:3 Letter Box" or "4:3 Pan & Scan" based on your personal preference. If you have a wide screen TV, select "Wide".

When viewing a wide screen TV or monitor

DVD screen size format

Wide screen format DVD

Please note that there are some wide screen letter box formats that place black bars at the top and bottom of the screen. This is not a malfunction.



Setting and Appearance

"Wide" setting

Standard screen format DVD
When viewing a standard screen
format DVD on a wide screen
TV, black bars may be
automatically placed at the side
of the screen to adjust to the
DVD format



"Wide" setting

Standard screen format DVD (unnatural stretched effect)

If you are viewing a standard screen format DVD on a wide screen TV, the picture may appear 'stretched' on the screen. To remedy this condition, change your wide screen TV to display a standard (4:3) screen. Refer to the instructions supplied with your wide screen TV or monitor for more information.



"Wide" setting

When viewing a standard size TV or monitor

DVD screen size format Setting and Appearance

Wide screen format DVD

The Letter box presentation places black bars at the top and bottom portions of the screen to provide the full wide screen presentation of a movie on a standard TV (4:3 aspect ratio).



"Letter Box" setting

Wide screen format DVD

The Pan & Scan presentation crops both sides of the wide screen presentation to use the full standard TV screen.



"Pan & Scan" setting

Standard screen format DVD

If you have a standard TV, the standard screen format will be presented regardless of the setting.



Any setting

Wide screen format DVD (unnatural squeezed effect)

If you are viewing a wide screen format DVD on a standard TV and the [TV Screen] setting is set to "Wide", the picture may appear 'squeezed' on the screen. To remedy this condition, select either "Letter Box" or "Pan & Scan".



"Wide" setting

Adjusting the OSD (On-Screen Display)

Setting the on-screen display (OSD) language

This setting is used to establish the language that operation indicators and on-screen messages and operations display. Change this setting in the Setup screen **Language** menu [OSD Language] setting.



Settings: English*

Français Español

* Factory Setting

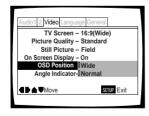
Notes

- The languages that can be selected may be different from those shown above.
- The [OSD Language] setting is factory set to "English". If you
 want English to be displayed, it is not necessary to adjust this
 setting.

Setting the position of the on-screen display Expert

When watching conventional software on a wide screen TV, the operation display is at the very top of the screen, and may be difficult to see. When this occurs, selecting "Wide" changes the position of the display and lets you see operation indicators clearly even on a wide screen TV. Otherwise, select "Normal".

Make changes in the [OSD Position] in the Setup screen **Video** menu in the "Expert" menu mode (page 20).



Settings: Wide Normal*

* Factory Setting

Turning the on-screen display on or off Expert

If you would rather not have the operation indicators (Play, Stop, Resume, etc.) and other messages displayed on the screen, it is possible to turn them off in the [On Screen Display] setting in the Setup screen **Video** menu in the "Expert" menu mode (page 20).



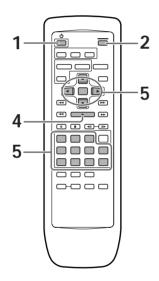
Settings: On*
Off

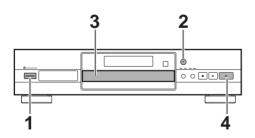
* Factory Setting

Getting Started Using Your DVD Player

Playing DVDs, Video CDs and CDs - DVD/Video CD/CD

Before you can start to enjoy the digital audio and video on DVDs, be sure that you have made the necessary settings in the Setup screen menus outlined in the previous section to correspond to your home system. Having made these settings, you are now ready to start using the player to enjoy DVDs, Video CDs, and CDs.





- 1 Press & (& STANDBY/ON on the front panel).
- Press OPEN/CLOSE (♠ on the front panel). The disc tray comes out.
- 3 Load a disc.

Load a disc with the label side facing up, using the disc tray guide to align the disc.



- **4** Press **PLAY** ► (► on the front panel).
 - The disc tray closes, and playback begins.
 - Depending on the disc, a menu may be displayed. If a menu is displayed, proceed to step 5.
- **5** Select the item you want to view.
 - When a DVD is loaded:
 Select the item with the cursor buttons ◄/►/▲/▼
 or the number buttons then press ENTER.
 - When a Video CD is loaded:
 Use the number buttons to select the item.

Notes

- Noise is output if you make digital audio connections to a receiver or amplifier that does not have a built-in decoder. Check that the digital audio output format selected in the Audio 1 menu corresponds to the audio components you have made connections to (page 21).
- The TV screen size is factory set to present the wide screen format (16:9 aspect ratio). If you have a standard TV screen (4:3 aspect ratio), this setting can be changed to match your TV screen size in the Video menu (page 22).

When an operation is prohibited

There are times when you are using the player and attempt to perform an operation, but for some reason it cannot be performed. When this occurs, one of the two following icons appears on the screen.



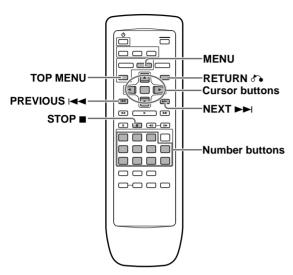
The operation is prohibited by the player.



The operation is prohibited by the programming on the disc.

When a menu screen is displayed

Menu screens are displayed for DVDs that have menu screens or Video CDs that include Playback Control (PBC). DVDs often contain extra information that can be accessed in the DVD menu and sometimes makes navigating DVD menu screens as enjoyable as watching the feature presentation.



Example: When a DVD that has menu screens is loaded



Example: When a Video CD that has Playback Control is loaded



To open or return to the DVD or Video CD menu screen

Although this differs depending on the disc, pressing MENU, TOP MENU, or RETURN & during DVD playback or RETURN & during Video CD playback displays the menu screen. Refer to the DVD or Video CD disc jacket and accompanying documentation for more information

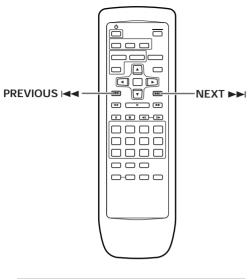
To navigate a menu screen

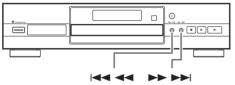
- Although individual DVD titles may differ, when a menu screen is displayed, use the cursor buttons (◄/
 ►/▲/▼) and ENTER on the remote control. The cursor buttons are used to move around the options on the screen and ENTER is used for selection.
- Occasionally, the number buttons may also be used to make selections. If this is possible, using number buttons serves to directly select an option on a menu screen. Only number buttons are used to make selections on Video CD menu screens.
- When the Video CD has more than one menu, pages can be advanced to or returned to with PREVIOUS I◄◄ or NEXT ▶►I.

To play Video CDs without displaying menu screens

Video CDs with Playback Control (PBC) display a menu screen when play is started. It is possible, however, to play back Video CDs without displaying menu screens. When a Video CD with PBC is loaded, press **STOP** ■, and then the number button of the track you want to play.

Chapter (Track) Skip Forward/ Skip Back - DVD/Video CD/CD





Advancing to the next chapter (track)

Press **NEXT** ►►I (►► ►►I on the front panel).

- · Press to skip forward to the next chapter (track).
- When a CD is loaded, you can advance more than one track forward by pressing and holding NEXT ►►I and releasing when the desired track number appears in the display.

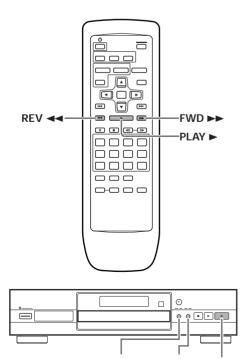
Skipping back to the previous chapter (track)

Press **PREVIOUS** I◄◄ (I◄◄ ◄◄ on the front panel).

- Press once to skip back to the start of the chapter (track) currently playing.
- Press twice to skip back to the start of the previous chapter (track).
- When a CD is loaded, you can skip back to the track you want to hear by pressing and holding PREVIOUS
 I◄◄ and releasing when the desired track number appears in the display.

Forward and Reverse Scanning

- DVD/Video CD/CD



Fast forward scanning

Press and hold **FWD** ►► (►► ►►I on the front panel) during playback.

- Release FWD ►► when you reach the desired location. Normal playback resumes.
- When the "Scan" indicator on the screen changes from flashing to lit, fast forward scanning will continue even if the button is released. When the desired location has been reached, press PLAY ►.

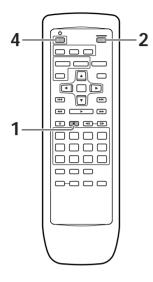
Fast reverse scanning

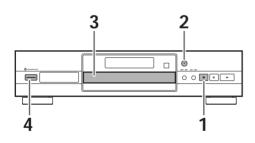
Press and hold **REV** ◀◀ (I◀◀ ◀◀ on the front panel) during playback.

- When the "Scan" indicator on the screen changes from flashing to lit, fast reverse scanning will continue even if the button is released. When the desired location has been reached, press PLAY ►.

Stopping Playback and Switching Power Off

- DVD/Video CD/CD





- Press STOP (■ on the front panel). Playback stops.
- Press OPEN/CLOSE (♠ on the front panel). The disc tray comes out.
- **3** Remove the disc.



4 Press & (& **STANDBY/ON** on the front panel). The disc tray goes back in.

Resuming playback from where you stopped -- DVD/Video CD

With this player, it is possible to resume play of a DVD even when play has been stopped.

Press **STOP** ■ once to enable play to resume from a point shortly before the DVD was stopped when **PLAY** ► is pressed again.

- Pressing STOP twice to causes the disc to return to the beginning when PLAY ➤ is pressed again.
- When STOP is pressed, "RESUME" appears in the display for as long as resume playback is possible. If the function is canceled, "RESUME" disappears and the disc format appears in the display.

Note

Resume play is only possible when the disc is loaded and **STOP** ■ has not be pressed twice in succession ("RESUME" appears in the display). If you want to continue viewing a DVD at a later time or date, it is recommended to use the Last Memory function described on page 44.

Setting the Language Options

DVDs have the capacity to contain a great deal of audio information, which includes the ability to hold up to 8 different language tracks and subtitle information in as many as 32 different languages. This section outlines the variety of audio language and subtitle options available with this player.

In this section, you'll be able to:

- Select one of the subtitle languages programmed on a DVD or turn the subtitles off using the remote control (this page).
- Select one of the languages programmed on a DVD using the remote control (page 29).
- Change the audio output type when using Video CDs and CDs (page 29).
- Set preferences for audio and subtitle language (page 30).
- Set preferences for the language to be displayed by the DVD menu (page 31).
- Set Auto Language to display subtitles only for foreign films (page 32).
- Select whether to have the subtitles turned on or off, and even opt to select assist subtitles for viewers who are hard of hearing (page 32).
- Select to have subtitles forced to be displayed (page 32).

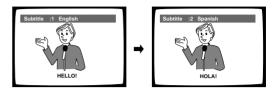
Note

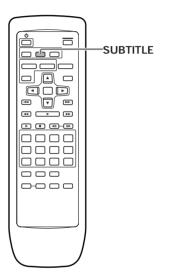
DVDs differ in content and do not all contain multiple language or subtitle information. Therefore making settings in this section may have no effect on some DVDs.

Selecting a Subtitle Language (Multi-Language Subtitles)

– DVD

You can select a desired subtitle language with DVDs that have subtitle data in multiple languages recorded on them.





Press **SUBTITLE** repeatedly during playback.

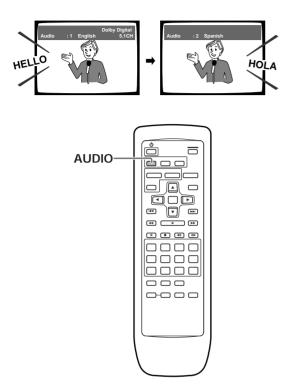
Pressing **SUBTITLE** once displays the currently selected subtitle language. Subsequent presses rotates through the subtitle languages available on the DVD.

Notes

- The subtitle language cannot be switched if the subtitle language is not recorded, or if only one language is recorded.
- Switching the subtitle language may not be possible with some discs. In this case, the mark will be displayed.
- To clear subtitles during playback, press SUBTITLE and then press CLEAR, or press SUBTITLE until "Off" appears.
- For some discs, subtitle language selection can be made using the menu on the DVD. In this case, press MENU to display the DVD menu screen and then make your selection.

Changing the Audio Language (Multi-Language Function) - DVD

Dolby Digital, PCM, and other audio data can be recorded on DVDs in a number of languages or audio tracks, letting you choose the desired language or audio.



Press **AUDIO** repeatedly to select the desired language.

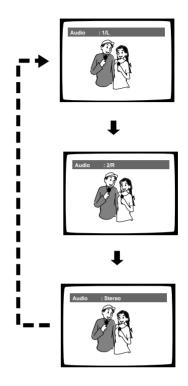
Pressing **AUDIO** once displays the currently selected language. Subsequent presses rotates through the audio languages available on the DVD.

Notes

- You cannot switch languages if there is only one language recorded on the disc.
- Switching the audio language may not be possible with some titles. In this case, the mark is displayed.
- For some titles, selection can be made using the DVD menu.
 In these cases, press MENU to display the DVD menu screen and then make your selection.

Changing Audio Type - Video CD/CD

For enjoyment of karaoke or similar format Video CDs and CDs, it is possible to select stereo audio, or either right or left channel mono depending on the requirements of the source.



Press **AUDIO** repeatedly during playback to switch the audio type.

Audio output changes from "1/L" (Left channel) to "2/R" (Right channel) to "Stereo".

Note

With karaoke and other discs, set the appropriate audio type for singing and accompaniment after referring to information on the disc jacket or accompanying material.

Setting Language and Subtitle Preferences in the Setup Screen Menus

The Setup screen **Language** menu contains a number of settings related to the audio and subtitle language preferences.

Selecting an audio language preference

The audio language that you normally listen to can be selected from the various audio languages on a DVD. Even when the audio language is changed during playback by pressing **AUDIO**, the language selected at this setting will be selected as the default when the DVD is changed.

Make changes to the [Audio Language] setting in the Setup screen **Language** menu.



Settings: English*

French Spanish

Other (For details on how to select other languages, see 'When " Other" is selected' on the following page.)

*Factory setting

Note

The menu settings may be different from those shown above.

Selecting a subtitle language preference

The subtitle language that you will normally display can be selected from the subtitles programmed on a disc. Even when the subtitle language is changed during playback by pressing **SUBTITLE**, the language selected at this setting will be selected when the disc is changed. Make changes to the [Subtitle Language] setting in the



Settings: English*

French

Spanish

Setup screen Language menu.

Other (For details on how to select other languages, see 'When " Other" is selected' on the following page.)

*Factory setting

Note

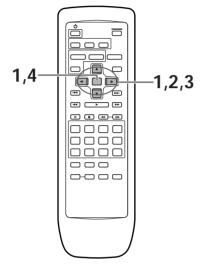
The menu settings may be different from those shown above.

When "Other" is selected

When you want to select one of the 136 languages as the main audio language, follow the steps below when the following screen appears.

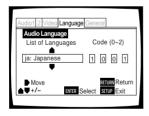
A language code list can be found on page 51.



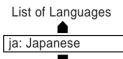


1 Use the cursor buttons to select "Other" and press ENTER.

The language selection screen appears.



- 2 Use the cursor buttons (◄/►) to select either "List of Languages" or "Code".
- 3 If you select "List of Languages", use the cursor buttons (▲/▼) to select the language.



If you select "Code", use the cursor buttons $(\blacktriangle/\blacktriangledown)$ to input the numbers of the input code. Use the cursor buttons $(\blacktriangleleft/\blacktriangleright)$ to change the position of the cursor. You can also use the number buttons to enter the code.



4 Press **ENTER** to set the new language. To exit the screen without making any changes, press **RETURN** ••.

Selecting a DVD menu language preference Expert

In addition to containing different audio languages, DVD may also contain menu screens in different languages as well. Setting a DVD language preference, sets the selected language as a default when DVDs with menu information in that language are encountered.

Selecting "w/ Subtitle Language" automatically assigns the language selected in the [Subtitle Language] setting.

Make changes to the [DVD Language] setting in the Setup screen **Language** menu in the "Expert" menu mode (page 20).



Setting: w/ Subtitle Language*

English

French

Spanish

Other

* Factory setting

Notes

- The menu settings may look different from the one shown above.
- If this function is not effective, the languages that can be selected may also be selected in the DVD menu. Press MENU to open the DVD menu and make your selection accordingly.

Setting Auto Language to control subtitle and audio language based on program content

When the Auto Language function is used, foreign movies are shown with the original audio soundtrack and subtitles in the language selected in the [Subtitle Language] menu option. Domestic films are shown with the original audio soundtrack and no subtitles.

Make changes to the [Auto Language] setting in the Setup screen **Language** menu.



Settings: On*
Off

* Factory setting

Note

The Auto Language function operates only when this function is set to "On", and the language set for the [Audio Language] and [Subtitle Language] settings is the same.

Selecting subtitles, assist subtitles or no subtitles Expert

Use this function to turn the subtitles on or off. Additionally, some DVDs provide assist subtitles that provide additional explanations of scenes in addition to the standard subtitles for viewers who are hard of hearing. Select "Assist Subtitle" to display these subtitles on DVDs where this function is offered.

Make changes to the [Subtitle Display] setting in the Setup screen **Language** menu in the "Expert" menu mode (page 20).



Settings: On*
Off

Assist Subtitle

* Factory setting

Notes

- If there is no subtitle information recorded on the DVD, no subtitles are displayed even if this function is set to "On".
- This setting serves as a default as whether or not to display subtitles. Even if this option is set to "Off", subtitles can be displayed by pressing SUBTITLE. Similarly, if this option is set to "On", the subtitles can be turned off by pressing SUBTITLE and then CLEAR.

Forcing subtitles to be displayed Expert

This setting allows you to force subtitles to be displayed with DVDs that do not automatically display them on the screen

Select "With Audio" to display the subtitles in the same language as the currently selected audio language. Select "Selected Subtitle" to display the subtitles in the language set in the [Subtitle Language] setting.

Make changes to the [Subtitles Off] setting in the Setup screen **Language** menu in the "Expert" menu mode (page 20).



Settings: With Audio
Selected Subtitle*

* Factory setting

Advanced Functions

This player is compatible with DVD, Video CD, and CD disc formats. Users already familiar with Video CD or CD will already be familiar with some of the functions the player is capable of performing. With DVD, an even greater number of possibilities and functions are available.

In this section, you'll be able to:

- Adjust the dynamic range of the audio soundtrack so that quiet sounds can be heard better (this page).
- Adjust the picture quality to better match program content (this page).
- Pause DVD or Video CD playback, play at extremely slow speeds or view frame by frame (page 34).
- Search for titles, chapters, tracks or locations on a disc (page 35).
- Change the angle of playback when viewing DVDs with multi-angle programming (page 36).
- Repeat an entire title, chapter, or track, or just a specified part (page 37).
- Play DVD titles or chapters, or Video CD/CD tracks in random order (page 38).
- Program DVD titles or chapters, or Video CD/CD tracks to play back in a specified order (page 39).
- Set the parental lock level to prevent children from having access to inappropriate material (page 42).
- Continue watching a DVD from where you left off using the Last Memory function (page 44).
- Save the system settings for up to 15 DVDs with the Condition Memory function (page 45).
- View playing time and other disc information (page 46).
- · Change the background color (page 48).
- Reset the system (page 48).

Note

DVDs differ in content and do not all contain the same information. Therefore some functions in this section may not work or have no effect on some DVDs.

Adjusting the Dynamic Range of the Audio Soundtrack - DVD

Audio DRC stands for Audio Dynamic Range Compression. When Audio DRC is on, soft sounds such as dialog can be heard more clearly without making loud sounds even louder. Select from three levels of compression depending on how much effect you want. When Audio DRC is set to "Off", there is no effect on the audio source.

Make changes to the [Audio DRC] setting in the Setup screen **Audio 2** menu.



Settings: Large

(maximum compression of audio source)

Mediun

(moderate compression of audio source)

Small

(very little compression of audio source)

Off*

*Factory setting

Note

Audio DRC is not effective with DTS audio sources.

Selecting Picture Quality Appropriate for Program

Content Expert - DVD/Video CD

This lets you select the ideal picture quality for watching movies, animation and other video media. Make changes to the [Picture Quality] setting in the Setup screen **Video** menu in the "Expert" menu mode (page 20).



Settings: Cinema

Provides a sharp, clear black picture for images with high contrast.

Animation

Provides images with bright clear colors.

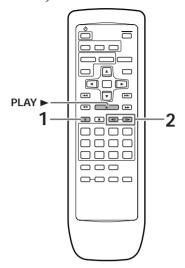
Standard*

Presents the video with no effect added.

* Factory setting

Still Frame/Slow Play/Frame Advance Playback - DVD/Video CD

The video images on DVD and Video CD can be viewed as a still frame, played back at slow speeds and even advanced frame by frame.



Viewing a still frame

Press PAUSE II.

34

When viewing a DVD, if the paused picture shakes, select the "Field" setting in the Setup screen **Video** menu [Still Picture] setting as described in the section below.

To return to normal playback

When viewing a still frame playback, pressing **PAUSE II** or **PLAY** ► restores normal playback operation.

Selecting the type of paused image to display Expert

This function lets you view a clear still-image when DVD playback is paused.

Make changes in the [Still Picture] setting in the Setup screen **Video** menu in the "Expert" menu mode (page 20).



Settings: **Field** (Picture shake will be eliminated during a paused picture.)

Frame (Select to obtain higher picture quality.) **Auto*** (Selects field or frame automatically according to the disc.)

* Factory setting

Viewing slow playback

Press and hold **STEP II** during playback.

- · Slow playback is engaged.
- During slow playback, the speed of playback can be adjusted from 1/2 normal playback speed to 1/16 normal playback speed in four steps using STEP ◀II and II▶.



Press and hold **STEP ◄II** during DVD playback.

- · Slow playback in the reverse direction is engaged.
- In the reverse direction, the playback speed cannot be adjusted.

To return to normal playback

When viewing still frames or slow playback, pressing **PLAY** ► restores normal playback operation.

Frame by frame advance playback: Viewing one frame at a time

1 Press PAUSE II.

2 Press STEP **◄II** or **II** ►

STEP II : The picture advances one frame each time the button is pressed.

STEP → II: The picture backs up a DVD a few frames each time the button is pressed.

To return to normal playback

When viewing frame by frame playback, pressing **PLAY** ► restores normal playback operation.

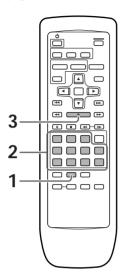
Notes

- There is no sound when viewing still frames or slow playback, or when advancing one frame at a time.
- Still frame, slow play, or frame advance playback may not be possible with certain titles. In this case, the mark is displayed.

Searching for a Title, Chapter, Track, or Location on a Disc

- DVD/Video CD/CD

This player offers different ways of accessing the information on a DVD, Video CD, or CD. Using **SEARCH MODE**, you can search for titles or chapters on a DVD, tracks on a Video CD or CD, and even select the point in time to start playback.



Press SEARCH MODE repeatedly to select the type of search.

The type of search changes which each press as follows.



- 2 Press the number button(s) of the desired title, chapter or track or of the specific time where you would like to begin playback.
 - · To select number 3, press 3.
 - To select number 10, press 1 and 0
 - To select number 87, press 8 and 7.

When performing a time search:

- To select 21 minutes, 43 seconds, press 2, 1, 4, and 3.
- To select 1 hour, 14 minutes, press 7, 4, 0, and 0.

3 Press Play ▶.

Playback of the selected title, chapter or track starts. When a time search is performed, playback begins at the appointed time.

Notes

- For some discs, selection can be made using the top menu on the DVD. In this case, press TOP MENU to display the menu screen and then make your selection.
- With some DVDs, the search operation may not be possible and may stop shortly after being performed. In this case, the mark is displayed.
- · Time search is not possible with CDs.
- When performing DVD time search, playback may start from a slightly different time than that specified.
- Time search is not possible during when the disc is stopped.
- Search using time search is not possible during PBC playback of Video CDs.

To perform a direct title or chapter/track search using the number buttons

- Press the number buttons while the disc is stopped to select a title number.
- Press the number buttons while the disc is playing to select a chapter or track.

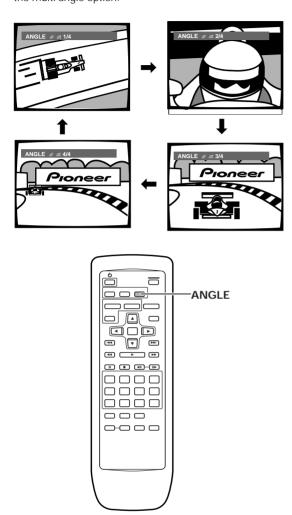
Note

Direct search cannot be performed for title, chapter, or track numbers 20 or higher. To search for titles, chapters, or tracks with numbers 20 or higher, use the title or chapter/track search procedures using **SEARCH MODE** as described on this page.

Viewing from a Desired Camera Angle (Multi-Angle)

- DVD

You can select a camera angle when viewing DVDs with the multi-angle option.



Press ANGLE during playback.

The camera angle changes each time you press the button.

Notes

- You can use the Multi-Angle function only with discs featuring recordings of images shot from different camera angles.
- During Multi-Angle playback, the ANGLE indicator in the display lights.
- For some discs, selection can be made using the DVD menu.
 In this case, press MENU to display the DVD menu screen and then make your selection.

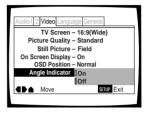
To check whether or not a disc is recorded with angles:

The jacket of discs that are recorded with angles will be marked with the late of the late

Turning the angle indicator on and off Expert

When a picture recorded in different angles is played back \bowtie is displayed on the screen. This setting lets you see clearly whether the playback picture is recorded in multiple angles or not.

Turn the angle indicator on or off in the [Angle Indicator] setting in the Setup screen **Video** menu in the "Expert" menu mode (page 20).



Settings: **On*** (⋈ is displayed) **Off** (Not Displayed)

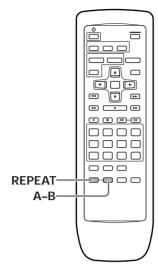
* Factory setting

Note

Even when the [Angle Indicator] setting is set to "Off", the ANGLE indicator in the display panel of the player lights during multi-angle playback. Therefore, it is possible to know when the multi-angle function can be used without having to display the icon on the screen.

Repeat Play - DVD/Video CD/CD

You can repeat an entire title, chapter or track, or just a part.



Repeat play of a chapter/track

Press **REPEAT** once during playback of the chapter or track you want to repeat.

Repeat play of a title

Press **REPEAT** twice during playback of the title you want to repeat.

- With DVDs, the title continues playing until the end, and then playback starts once more from the beginning of that title.
- With CDs and Video CDs, a disc is considered a single title, so the entire disc is repeated.

To repeat a program

Press **REPEAT** once during program playback to repeat the program.

To cancel repeat play

Press **CLEAR**. Playback continues, but the repeat function is canceled.

Repeat play of a specified section

Press **A–B** at the beginning and end of the section you want to repeat.

- When A-B is pressed a second time, the disc returns to the location where A-B was pressed first and plays the selected section repeatedly.
- You can only perform A–B repeat within the same title, chapter, or track.

To cancel A-B repeat play

Press **CLEAR**. Playback continues, but the repeat function is canceled.

Return to a specified location on a disc

- 1 Press **A-B** at the desired location.
- When you want to return to the specified location, press PLAY ►.

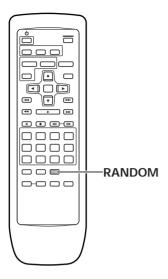
To clear the specified location

Press **CLEAR** to cancel repeat play or to clear the specified location that was set using **A–B**.

- With some DVD discs, there may be times when repeat playback is not possible. In these cases, the mark will appear on the screen.
- With Video CDs, repeat play is not possible when the menu is displayed (PBC playback). To perform repeat play, start playback without displaying a menu by pressing the track number to be repeated when the disc is stopped, and then press REPEAT.

Random Play - DVD/Video CD/CD

Play titles, chapters, or tracks on a disc in random order.



Random playback of chapters within one title-DVD

Press RANDOM once, then press ENTER.

"Random Chapter" appears on the screen, and chapters within the title will be played back in random order.

Random playback of titles

Press **RANDOM** twice, then press **ENTER**.

"Random Title" appears on the screen, and titles will be played back in random order.

Random playback of tracks

-Video CD/CD

Press RANDOM.

"Random" appears on the screen, and random playback begins.

To change titles, chapters, or tracks during random play

- Press NEXT ►►I and the next randomly selected track starts playing.
- Press PREVIOUS I→ and playback of the current track starts again from the beginning.

To stop random play

Press **CLEAR**. This returns you to normal playback of chapters/tracks in order from the chapter/track currently playing.

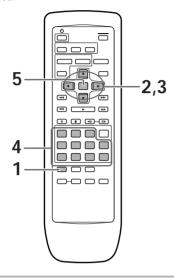
- With Video CDs, random play is not possible during playback when the menu is displayed (PBC playback). To perform random play, start playback without displaying a menu by pressing a track number button while in the stop mode, and then press RANDOM.
- Random play of programmed chapters/tracks is not possible.
- In the case of DVDs, random playback may not be possible with some discs.
- Repeat playback of random playback is not possible. In these cases, the mark will appear on the screen.

Playback in a Desired Order (Program Play) - DVD/Video CD/CD

The titles and chapters within a title on a DVD and similarly the tracks on a Video CD or CD can be arranged to play in the order you want.

Programming DVDs

A program with a maximum of 24 steps can be memorized.



1 Press PROGRAM.

The Program screen appears.





- 2 Use the cursor buttons (◄/►) to select either Chapter or Title program.
- 3 Once the program type is selected. Use the cursor button (▼) to enter the program window

When "Program Chapter" is selected, you must also select what title the chapters to be programmed are in. Use the cursor button (▲) to highlight "Title" and then use the number buttons to enter the title number to be used.

- 4 In the program window, use the number buttons to enter the numbers of the titles or chapters in the order you want to program them in.
 - To program DVD titles/chapters 9, 7, and 18 in order, press 9, 7, +10 and 8.





5 Press ENTER.

- · Playback starts in the set order.
- Press PROGRAM to return to the previous display. The program will not begin until PLAY > is pressed.

To program a pause in a program

Press PAUSE II instead of a number button.

" $\ensuremath{\mathbf{II}}$ " appears on the screen and the pause can be programmed.

A pause cannot be programmed as the first or last position in a program, and two or more pauses cannot be programmed in succession.

To delete a number:

Use the cursor buttons $(\triangle/\nabla/\blacktriangleleft/\triangleright)$ to highlight the incorrect number and then press **CLEAR**.

The number is deleted. If the number was before another number, the later numbers are reordered automatically.

To insert a number:

Use the cursor buttons $(\triangle/\nabla/\blacktriangleleft/\triangleright)$ to highlight the number to be placed after the new number and then press the number button(s) of the number to be inserted.

The new number is inserted before the previously selected number.

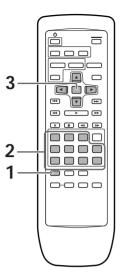
To stop program play

Press **STOP** ■.

- When programming chapters, chapters not programmed may appear on the screen. This is not a malfunction.
- Programming may not be possible with certain DVD discs. On these types of discs, the mark will appear on the screen when programming is attempted.
- Only chapters within the same title can be programmed during chapter programming.

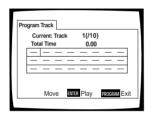
Programming Video CDs, CDs

A program with a maximum of 24 steps can be memorized.



1 Press PROGRAM.

The program screen appears. When a Video CD or CD is loaded, the cursor appears in the program window.



- 2 Use the number buttons to enter the numbers of the tracks in the order you want to program them in.
 - To program tracks 9, 7, and 18 in order, press 9, 7, +10 and 8.
 - To edit the program, refer to the procedures on this page.

3 Press ENTER.

- Playback starts in the specified track order.
- To stop the program play, press STOP ■.

Notes

- To program a pause, or to add or delete a number, refer to the procedures for programming DVDs on page 39.
- You cannot program when playing a Video CD using menu selections (during PBC).

Additional programming options

- DVD/Video CD/CD

After you have made a program, it is then possible to confirm, add, or clear the contents of the program.

To confirm the contents of a program:

On a CD or Video CD track program, press **PROGRAM** to confirm. The program screen displays the current program.

On a DVD, select the program type (title or chapter) with the cursor buttons (\blacktriangleleft / \blacktriangleright). The current DVD title or chapter program can then be confirmed on the appropriate program screen.

To add to a program:

- 1 Press PROGRAM.
- 2 Press a number button to add a new title, chapter, or track at the end of the program.
- 3 Press **PROGRAM** to exit the program screen.

To delete a program:

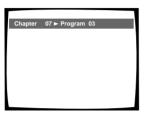
- Press PROGRAM.
- 2 Select the program with the cursor buttons (◄/►), then press CLEAR.
- 3 Press **PROGRAM** to exit the program screen.

- The complete program will be deleted even if the disc tray is open.
- Pressing CLEAR when the disc is stopped will clear all programs.

To make a program of your favorite parts of a disc as it plays - DVD/Video CD/CD

With this player, it is possible to make a program as you watch a DVD or Video CD or while listening to a CD.

Press and hold **PROGRAM** for at least 2 seconds at any point during playback of a title, chapter, or track you want to program, and it will be made into or added to a program without displaying a Program screen. When a title, chapter, or track is successfully added to the program, it is shown momentarily in the display as well as its position in the program.



To confirm the contents of a program:

Press PROGRAM.

Notes

- When using this function to program DVDs, the program being created corresponds to the Program screen (chapter or title) that appears when **PROGRAM** is pressed. Be sure to check that the appropriate program type is selected.
- You cannot make a program containing chapters in different

To save a program in memory - DVD

This player can memorize the programs on up to 24 DVDs. By turning the Program Memory to "On", the player will save your program and recall it the next time you use the same DVD. When the program memory exceeds 24, programs will be erased in chronological order from the oldest program in memory.

1 Use the cursor button (▼) to highlight [Program Memory] and use the cursor button (►) to select "On".



Press ENTER.

The program is saved in memory.

Note

To erase a program saved in memory - DVD

The player erases programs in chronological order when the maximum number of programs that can be held in memory is exceeded. To prevent the player from erasing older programs that you may still use regularly, or when you don't want to use a program anymore, it is possible to manually erase programs stored in memory.

- Load a DVD that has a program stored in memory.
- 2 Press **PROGRAM**.

The program screen appears.

- 3 Use the cursor button (▼) to highlight [Program Memory] and use the cursor buttons (►/▼) to select "Off".
- Press **ENTER**. The program is cleared from memory.

Setting the Parental Lock Level

This player lets you set the Parental Lock if the DVD has a parental lock level recorded on it. With Parental Lock capable discs, you can block access to material you feel is inappropriate for your children. Refer to the DVD disc jacket and the accompanying documentation to see if a particular disc contains a parental lock level.

Make changes to the [Parental Lock] setting in the Setup screen **General** menu. Please note that changes to the Parental Lock level can only be made when the player is stopped.



Settings: **Level Change** (For information, refer to "Setting the Parental Lock level" on the following page.)

Password Change (For information, refer to "Changing the Password" on the following page.)

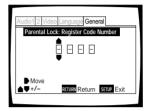
When a DVD with a set Parental Lock level is loaded

Playback cannot be started until the code number has been correctly input by using the cursor buttons $(\blacktriangleleft/\blacktriangleright/\blacktriangle/\blacktriangledown)$ or the number buttons, and **ENTER** has been pressed.

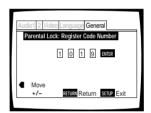
Entering the password

When you select either "Level Change" or "Password Change", it is necessary to enter the password (4-digit code number). Use the following steps at any time you are asked to enter or confirm your password.

1 Use the cursor buttons (△/▼) or the number buttons to select a number between 0 and 9. You can also use the number buttons to enter the numbers directly. When entering your password for the first time, or changing it, you will be asked to reenter your password. When using the number buttons to confirm the password, the numbers appear as asterisks, and the cursor advances automatically to the next position.



2 Use the cursor buttons (◄/►) to move the cursor to a different position in the password. When all four numbers of the passoword have been entered, ENTER appears on the screen.



3 Press **ENTER** to set the new password. The password is entered.

Note

Be sure not to forget your password. If you should forget it, reset the system, and enter a new password. To reset the system, see 'Resetting the Player to System Settings' (page 48). Please note that this procedure resets the system, and clears all saved settings, not just the password.

Setting the Parental Lock level

Change the Parental Lock level to a higher or lower level according to the settings printed on the DVD disc jacket or accompanying documentation. If you use the Condition Memory function to save the settings for a particular disc, the Parental Lock level is saved as well. Because it is saved in memory, Parental Lock levels can be set for individual discs according to their content rather than a set level for all DVDs.



1 Select "Level Change" in the [Parental Lock] setting.

The screen changes to the password input screen. If you have not yet set a password, you will be asked to do so at this time. To enter the password, refer to "Entering the password" on this page.

2 Use the cursor buttons (◄/►) to adjust the Parental Lock level.

The lock icons appear "unlocked" up to the selected level to indicate that access is available.

3 Press ENTER to set the new level.

The new Parental Lock level is set and the screen returns to the General menu screen. To go back to the General menu screen without making any changes, press RETURN .

Changing the password

Change your password whenever you feel it is necessary. However, if you forget your existing password, you cannot enter this screen to change it.



1 Select "Password Change" in the [Parental Lock] setting.

The screen changes to the password input screen. To enter the password, refer to "Entering the password" on the previous page.

If you have not yet set a password, you cannot select this setting. Establish a password by selecting "Level Change" first.

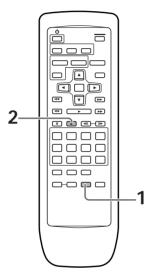
- 2 Use the cursor buttons (◄/►/▲/▼) or the number buttons to enter the new password.
- **3** When the new password has been entered, press **ENTER**.

The new password is set and the screen returns to the **General** menu screen. To go back to the **General** menu screen without making any changes, press **RETURN 3.**

Continuing Playback from a Specified Location (Last Memory) - DVD/Video CD

The Last Memory function is convenient when you want to continue viewing a disc from the point where you were watching before. Unlike the resume function, the Last Memory function is effective even if the DVD is removed from the player (Last Memory locations saved for Video CDs are effective only if the disc remains loaded in the player).

Memorizing a Last Memory location to return to later

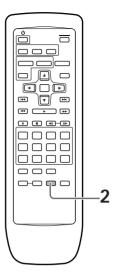


- 1 Press **LAST MEMORY** during play.
 The LAST MEMO indicator lights on the player.
- 2 Press & to turn the power to standby, or stop playback with STOP ■.

Once memorized, the memorized point will be recalled even if the power is turned off, or if the disc is ejected. Points on up to 5 discs can be memorized, and those points are recalled the next time any of the discs are played back.

 A Last Memory point can be memorized for only one Video CD at a time as the function is only effective until the Video CD is removed from the player.

Resuming playback from where LAST MEMORY was pressed



 Load a disc that has a Last Memory point memorized.

Some DVDs will start playback automatically when loaded. In this case, press **STOP** ■ to stop playback.

2 Press **LAST MEMORY** while in the stop mode.

The disc begins playback at the memorized point.

- Last Memory mode may not function for some DVDs.
- If you register more than five DVDs, details of the latest disc are memorized, while details of the least recent disc (the disc you registered first) is erased.
- Even with a disc you have memorized with Last Memory, playback begins at the start of the disc if you press PLAY >.
- This function is for playback of DVDs only. You cannot use it with Video CDs or CDs.

To clear the Last Memory location

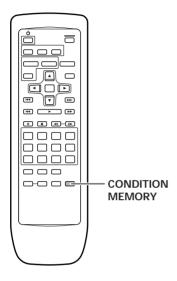
Call up the Last Memory location by pressing **LAST MEMORY**. Then press **CLEAR** while "Last Memory" is still being displayed on the screen.

The LAST MEMO indicator disappears from the display.

ADVANCED FUNCTIONS

Memorizing Settings for Often Viewed DVDs (Condition Memory) - DVD

You can store in memory settings for DVDs you often watch. Settings remain in memory even if you remove the disc from the player, or switch power to the player to standby. If you load a disc that has its settings memorized, "COND_MEMO" appears in the display. When you start playing the disc, the memorized settings are automatically recalled.



Press **CONDITION MEMORY** during playback.

Settings are memorized for the disc currently playing.

The following seven settings are memorized:

TV Screen (page 22)
OSD Position (page 23)
Multi-Language subtitles (page 28)
Multi-language (page 29)
Picture Quality (page 33)
Multi-Angle (page 36)
Parental Lock Level (page 42)

When a disc that has memorized settings is loaded

"Condition Memory" will appear on the screen, and the previously memorized settings will be selected.

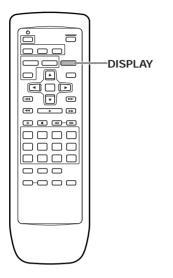
Erasing the recorded contents

Load a disc that has memorized settings, and press **CLEAR** while "Condition Memory" is being displayed. The disc's recorded data will be erased.

- · Settings are stored in memory for use any time.
- You can store settings for up to 15 DVDs in memory.
 If you memorize settings for more than 15 DVDs,
 previously memorized settings are erased in
 chronological order from the least recently
 memorized. Subsequently, if you load a disc with
 erased settings, the settings of the most recently
 played disc are used.
- If you make changes to any of the settings memorized in Condition Memory, press CONDITION MEMORY during playback to memorize new settings.
- Switching of the multi-language mode etc., is automatic on some discs.

Viewing Disc Information

Use **DISPLAY** to get current information about the disc currently loaded. You can get information about the titles and chapters on a DVD or tracks on a Video CD or CD. When viewing DVDs, you can also check the digital bitstream transmission rate.



Press **DISPLAY** during while a disc is playing. Press **DISPLAY** repeatedly to change the information being displayed.

The disc information is displayed superimposed over the video image on the screen.

Note

Depending on the format and type of disc being used, not all screens may be displayed.

The display changes for each type of disc as follows each time the button is pressed.

DVD



TITLE information:

Top Row: title and chapter number, elapsed time of current title

Bottom Row: remaining time in title, total time of title

1



CHAPTER information:

Top Row: title and chapter number, elapsed time of current title

Bottom Row: time in current chapter, total time of chapter

1



CHAPTER information:

Top Row: title and chapter number, elapsed time of current title

Bottom Row: remaining time in current chapter, total time of chapter

1



Data transmission rate information:

Top Row: title and chapter number, total elapsed time of DVD

Bottom Row: bitstream transmission rate level

1

Display off

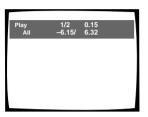


Track Information:

Top Row: current track number, track time

Bottom Row: remaining time of current track, and total time of track





Disc information:

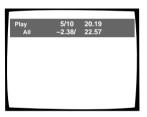
Top Row: current track number, total number of tracks on CD, total elapsed time of CD

Bottom Row: remaining time of CD, total time of CD

ļ

Display off

Video CD (with PBC disabled)



Disc information:

Top Row: current track number, total number of tracks, total elapsed time of Video CD

Bottom Row: remaining time of Video CD, total time of Video CD





Track information:

Top Row: current track number, total elapsed time of Video CD

Bottom Row: track time, total time of track





Track information:

Top Row: current track number, total elapsed time of Video CD

Bottom Row: remaining time of track, total time of track

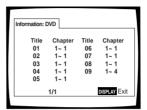
1

Display off

Press DISPLAY during while a disc is stopped to display DVD title and chapter information or Video CD and CD track information. Press DISPLAY again to turn the display off.

Information about the titles and chapters or tracks on a disc is displayed. When the information exceeds the space on the screen, use the cursor buttons $(\blacktriangleleft/\blacktriangleright)$ to move to other screens.

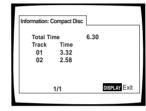
DVD



DVD information

When a DVD is loaded, each title and the number of chapters within each title is displayed.

CD and Video CD



CD and Video CD information

When a CD or Video CD is loaded, the total time of the disc and the time of each track on the disc is displayed.

Changing the Background Color of the Screen

You can select a blue or black background to appear when the player is in the stop mode.

Make changes to the [Background Color] setting in the Setup screen **General** menu in the "Expert" menu mode (page 20).



Settings: Black Blue*

*Factory setting

Resetting the Player to System Settings

To reset the player, press and hold \blacksquare (stop) on the front panel when pressing \circlearrowleft STANDBY/ON to turn the unit from standby to on .

All program memory, saved settings from functions such as Last Memory and Condition Memory are cleared, and all Setup screen menus are returned to factory settings.

Additional Information

Disc Care

HOW TO HOLD DISCS

When loading or removing discs, try not to touch their playing surfaces.

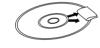


CLEANING

Fingerprints or other dirt on the disc may affect sound and picture quality.

To clean your discs, use a soft clean cloth to wipe them. If necessary, moisten a soft cloth with diluted neutral detergent to remove heavy dirt or fingerprints.





Do not wipe in a circular direction (Concentric scratches in the disc groove tend to cause noise.)

Gently wipe from the inside toward the outer edge.

Discs must not be cleaned with record cleaning sprays, or static prevention sprays, etc. Also do not use volatile liquids such as benzine, or thinner, etc.

LENS CLEANER

The player's pickup lens should not become dirty in normal use, but if for some reason it should malfunction due to soiling, contact your nearest PIONEER authorized service center. Lens cleaners are commercially available, but special care should be exercised in their use since some may cause damage to the lens.

NEVER PLAY CRACKED OR WARPED DISCS

The disc revolves in the player at high speed when it is played. Never play a cracked, scratched or warped disc. This may damage the player or cause it to malfunction.



NEVER USE DISCS WITH SPECIAL SHAPES

CD's with special shapes (heart-shaped CDs, octagonal CDs, etc.) cannot be played on this set.

Attempting to do so may damage the set. Do not use such CDs.



AFTER USING DISCS, STORE THEM UPRIGHT

After playing a disc, always remove it from the player and return it to its jacket. Then store it standing upright away from heat and humidity.

- Store discs carefully. If you store discs at an angle, or stacked on top of each other, discs may become warped even when in their jackets.
- Do not leave discs in locations such as the seat of a car, which may become excessively hot.

CAUTION WHEN USING THE DISC

All rights reserved.

Unauthorized public performance, broadcasting or copying is a violation of applicable laws.

Notes on using optical cables

- Do not route cords around sharp angles. When storing, wind the cords so that they have a diameter of at least 15 cm (6 in.).
- When connecting, push all the way into the terminal.
- · Do not use cords with a length of over 3 m.
- If moisture or dust has collected on the plug, wipe it with a soft cloth before connecting.



For Proper and Long Use of This Unit

DO NOT MOVE THE UNIT DURING PLAYBACK

During playback, the disc rotates at high speed. Do NOT lift or move the unit during playback. Doing so may damage the disc.

WHEN MOVING THE UNIT

When changing places of installation or packing the unit for moving, be sure to remove the disc and return the disc table to its original position in the player. Then, press **\(\phi\)STANDBY/ON** and switch the power to standby. **Check that the "-OFF-" indication on the display goes off**, then disconnect the power cord. Moving this unit with the disc loaded may result in damage to this unit.

INSTALLATION

- Select a stable place to the side of a TV set or stereo system to be connected to the unit.
- When using the unit with a stereo system, install the speakers a little bit away from the TV.
- Do NOT install the unit on top of a TV or color monitor.
 Install the unit away from equipment that may be affected by magnetism, such as a cassette deck.
- · Do NOT place objects on top of the unit.

AVOID INSTALLING IN A PLACE THAT IS:

- · Exposed to direct sunlight
- · Exposed to humidity or where ventilation is poor
- · Extremely hot or cold
- · Exposed to vibration
- Exposed to dust
- Exposed to oily smoke, steam or heat (for example, a kitchen)

DO NOT BLOCK VENTS

Do NOT use the player on top of a long-fibered carpet, bed or sofa, and do not cover it with a cloth, etc. This will prevent heat radiation and could result in damage.

AVOID HEAT

Do NOT place the unit on equipment which generates heat, such as an amplifier.

When installing the unit in a rack, place it on the lowest shelf possible (however, not where it is exposed to dust) and separated from the amplifier to avoid the heat generated by the amplifier or other audio equipment.

CAUTION: WHEN PLACING THE UNIT IN A STEREO RACK WITH GLASS DOORS

Be sure there is ample space between the unit and the glass doors when opening the disc table using the remote control. If the disc table opens against strong resistance, such as a closed glass door, damage to the unit may result.

CONDENSATION

Moisture may form in the operating section of the player if the player is brought from cool surroundings into a warm room or if the temperature of the room rises suddenly. When this happens, the player's performance will be impaired.

To prevent this, let the player stand in its new surroundings for about an hour before switching it on, or make sure that the room temperature rises gradually.

Condensation may also form during the summer if the player is exposed to the breeze from an air conditioner. In such cases, change the location of the player.



SWITCH POWER TO STANDBY WHEN NOT USING THE UNIT

Depending on the strength of the TV or radio broadcast signal, having the TV or radio on while power to the unit is on may result in stripes on the TV screen or noise. However, this is not a malfunction of this unit or the TV or radio. In such a case, switch the power of the unit to standby.



POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed in such a way that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

Language Code List

Language codes are used when setting the audio and subtitle language preferences. (See page 30)

Language	Language-	Input-code
Lunguage	code	input code
Japanese	ja	1001
English	en	0514
French	fr	0618
German	de	0405
Italian	it	0920
Spanish	es	0519
Dutch	nl	1412
Russian	ru	1821
Chinese	zh	2608
Korean	ko	1115
Greek	el	0512
Afar	aa	0101
Abkhazian	ab	0102
Afrikaans	af	0106
Ameharic	am	0113
Arabic	ar	0118
Assamese	as	0119
Aymara	ay	0125
Azerbaijani	az	0126
Bashkir	ba	0201
Byelorussian	be	0205
Bulgarian	bg	0207
Bihari	bh	0208
Bislama	bi	0209
Bengali	bn	0214
Tibetan	bo	0215
Breton	br	0218
Catalan	ca	0301
Corsican	СО	0315
Czech	CS	0319
Welsh	су	0325
Danish	da	0401
Bhutani	dz	0426
Esperanto	eo	0515
Estonian	et	0520
Basque	eu	0521
Persian	fa	0601
Finnish	fi	0609
Fiji	fj	0610
Faroese	fo	0615
Frisian	fy	0625
Irish	ga	0701
Scots-Gaelic	gd	0704
Galician	gl	0712
Guarani	gn	0714
Gujarati	gu	0721
Hausa	ha	0801

Language	Language- code	Input-code		
	code	•		
Hindi	hi	0809		
Croatian	hr	0818		
Hungarian	hu	0821		
Armenian	hy	0825		
Interlingua	ia	0901		
Interlingue	ie	0905		
Inupiak	ik	0911		
Indonesian	in	0914		
Icelandic	is	0919		
Hebrew	iw	0923		
Yiddish	ji	1009		
Javanese	jw	1023		
Georgian	ka	1101		
Kazakh	kk	1111		
Greenlandic	kl	1112		
Cambodian	km	1113		
Kannada	kn	1114		
Kashmiri	ks	1119		
Kurdish	ku	1121		
Kirghiz	ky	1125		
Latin	la	1201		
Lingala	In	1214		
Laothian	lo	1215		
Lithuanian	lt	1220		
Latvian	lv	1222		
Malagasy	mg	1307		
Maori	mi	1309		
Macedonian	mk	1311		
Malayalam	ml	1312		
Mongolian	mn	1314		
Moldavian	mo	1315		
Marathi	mr	1318		
Malay	ms	1319		
Maltese	mt	1320		
<u> </u>		1325		
Burmese Nauru	my	1401		
	na	1405		
Nepali	ne			
Norwegian	no	1415		
Occitan	000	1503		
Oromo	om	1513		
Oriya	or	1518		
Panjabi	pa	1601		
Polish	pl	1612		
Pashto, Pushto	ps	1619		
Portuguese	pt	1620		
Quechua	qu	1721		
Rhaeto-Romance	rm	1813		

Language	Language- code	Input-code	
Kirundi	rn	1814	
Romanian	ro	1815	
Kinyarwanda	rw	1823	
Sanskrit	sa	1901	
Sindhi	sd	1904	
Sangho	sg	1907	
Serbo-Croatian	sh	1908	
Singhalese	si	1909	
Slovak	sk	1911	
Slovenian	sl	1912	
Samoan	sm	1913	
Shona	sn	1914	
Somali	SO SO	1915	
Albanian	sq	1917	
Serbian	sr	1918	
Siswati	SS	1919	
Sesotho	st	1920	
Sundanese	su	1921	
Swedish	SV	1922	
Swahili	SW	1923	
Tamil	ta	2001	
Telugu	te	2005	
Tajik	tg	2007	
Thai	th	2008	
Tigrinya	ti	2009	
Turkmen	tk	2011	
Tagalog	tl	2012	
Setswana	tn	2014	
Tonga	to	2015	
Turkish	tr	2018	
Tsonga	ts	2019	
Tatar	tt	2020	
Twi	tw	2023	
Ukrainian	uk	2111	
Urdu	ur	2118	
Uzbek	uz	2126	
Vietnamese	vi	2209	
Volapuk	VO	2215	
Wolof	WO	2315	
Xhosa	xh	2408	
Yoruba	yo	2515	
Zulu	ZU	2621	

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Inspect the other components and electrical appliances being used. If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

The disc table comes back out automatically, shortly after the disc table is closed.

The disc is dirty or warped.

→ Refer to "Disc Care" (page 49).

The disc is not placed properly on the disc table.

→ Use the disc table guide to align the disc (page 24).

Region number does not conform with this unit.

→ If the region number on the disc does not match the number on the player, the disc cannot be used (page 56).

There is condensation on the operating section of the player.

→ Allow time for condensation to evaporate. If player is near an air conditioning unit, you should move the player (page 50).

Playback is not possible.

The disc has been loaded upside down.

→ Check that the disc has been loaded with the label side facing up.

mark appears on screen.

The selected function does not operate for that disc.

amark appears on screen.

The operation is prohibited by the player.

Picture playback stops and the operation buttons cannot be used.

Player malfunctions.

→ Stop disc playback (press STOP ■), then start playback again.

New settings made in the Setup screen menus while a disc is playing are ineffective.

Some settings can be changed while a disc is playing, but are not effective. This is not a malfunction.

- Make the same setting when the player is stopped.
- → Stop disc playback (press STOP ■), then start playback again. When playback is resumed, the new settings should be in effect. Please note that making settings in the Setup screen menus may cancel the resume function.

Settings are canceled.

When the power is turned off by power failure or by unplugging the power cord, settings will be canceled.

No picture.

The rear panel's VIDEO OUT SELECT switch setting is not correct.

→ Check that the VIDEO OUT SELECT switch is set to the correct position for the monitor connection you are using (page 17).

Connection is incorrect.

→ Check that cord connections are correct and that plugs are firmly connected.

Operation (settings) of TV or AV amplifier is not appropriate.

→ Be sure that your TV, receiver, or amplifier is set up to view DVD playback.

The screen is stretched or aspect does not change.

The multi aspect setting is not appropriate.

→ Change the aspect setting in the [TV Screen] setting in the Setup screen Video menu to the screen type most appropriate to the TV or monitor you are using (page 22).

Picture disturbance during playback or dark.

This is not a malfunction.

→ This player is compatible with Macro-Vision System copy guard. Some discs include a copy prevention signal, and when this type of disc is played back, stripes etc., may appear on some sections of the picture depending on the TV.

When recorded on a VCR or passed through an AV selector, there is disturbance in the playback picture.

This is not a malfunction.

Due to the player's copy protection circuits, connection of this device through a VCR or an AV selector may prevent recording or cause picture problems.

Remote control operation is not possible.

The rear panel control input jack on the player is being used.

→ Point the remote control at the component that the player is connected to (page 18).

The remote control is too far from the player, or the angle with the remote sensor is too wide.

→ Be sure to operate the remote from a location within its operating range (page 9).

The batteries are exhausted.

→ Replace the exhausted batteries with all new batteries (page 8).

Audio is not output or is distorted.

The Setup screen **Audio 1** menu [96 kHz PCM Out] setting is set to "96 kHz". Digital output is prohibited on some discs.

→ Be sure to make analog audio connections as well as digital connections (pages 15 and 16).

The disc is dirty.

→ Refer to "Disc Care" (page 49).

The connection plugs are not inserted fully into the terminals or are not connected.

→ Check that all connection plugs are firmly inserted.

The connection plug or terminal is dirty.

→ Check that the plugs and terminals are wiped clean of dirt, etc.

Audio cable connection is wrong.

→ Check to make sure that the audio cables are connected correctly (page 16).

Connection is made to the stereo amplifier's PHONO input terminal.

Change connection to any input terminal except PHONO.

The pause mode is engaged.

→ Press PLAY ➤ or PAUSE II to exit the pause mode.

Stereo amplifier operation is incorrect.

→ Check input (CD, AUX, etc.) selector to determine if it is selected for DVD playback.

The DVD or CD is recorded in DTS audio.

→ DTS audio is only output from the digital output jacks. Connect the digital output on the player to the digital input on a receiver or amplifier with a built in DTS decoder to hear DTS audio.

Noticeable difference in DVD and CD volume.

DVDs and CDs use different recording methods.

→ This is not a malfunction.

Caution

Static electricity or other external influence may cause malfunctioning of this unit. In this case, unplugging the power cord and then re-plugging it in will usually reset the unit for proper operation. If this does not correct the problem, please consult your nearest PIONEER service center.

Terms

Aspect ratio

Aspect ratio refers to the length to height ratio of TV screens. The ratio of a standard TV is 4:3, while the ratio of a high-definition or wide TV is 16:9. The latter allows you to enjoy a picture with a wider perspective.

Chapter number

Chapter numbers are the numbers assigned to sections of a title on the disc, similar to chapters in a book. If the disc includes chapter numbers, you can locate the section you want very quickly using search and other functions.

Component (color difference) video output

The color signal of the TV is divided into the luminance (Y) signal and the color (P_B and P_R) signals and then output. In this way mutual interference of each signal is avoided. On a TV with component input jacks, these signals are synthesized to produce the picture.

Condition memory

"Condition" refers to the various mode settings, etc. On this player, various conditions, such as those set during playback, can be memorized. This function allows you to play back the same disc at any time without having to redo your preferred settings.

Digital bitstream

The bitstream does not refer to the audio signal, but rather to the digital data that, once converted, becomes the audio signal. The player outputs digital bitstreams via the digital optical or digital coaxial output. If the bitstream cannot be decoded by the connected AV amplifier etc., digital noise is produced. Digital bitstream formats compatible with different entertainment systems can be selected in the Setup screen **Audio 1** menu.

Digital output (Coaxial)

Output of the digital audio signal is transmitted electronically using a coaxial cable. Because the signal being transmitted is digital, connection must be made to the coaxial digital input of another component. Noise will be output if connected to the analog audio inputs as the digital signal cannot be decoded.

Dolby Digital

The maximum 5.1 channels of audio used in the surround system (Surround Digital) for movie theaters is digital data compressed by the third generation algorithm encoder, AC-3.



In order to enjoy Dolby Digital discs, this unit's digital output jack (either coaxial or optical) must be connected to the digital input jack of an AV amplifier or Dolby Digital decoder to enjoy the sound of Dolby Digital soundtracks.

DTS

DTS stands for Digital Theater System. DTS is a surround system different from Dolby Digital that has become a popular surround sound format for movies, as well as CDs. In order to enjoy the benefits of DTS encoded discs, the digital output jack (either coaxial or optical) of this player needs to be connected to an AV amplifier or receiver or to a DTS decoder to be able to enjoy the surround sound of DTS audio. DTS audio is not output from the analog audio outputs.

Dynamic range

Dynamic range refers to the difference between the maximum and minimum levels of the audio soundtrack as measured in decibels (dB).

Compressing the dynamic range raises the minimum signal level and lowers the maximum signal level. This allows you to hear voices and other low level audio signals clearly while lowering strong audio signals like the sound of explosions.

MPEG

Short for Moving Picture Experts Group. This is an international standard for compression of moving images. On some DVDs, digital audio has been compressed and recorded in this format.

Multi-angle

When you watch a TV program, you are watching the image filmed through the TV camera. Because of this, the picture is displayed on your TV from the viewpoint of the TV camera's position. In a TV studio, the image is filmed by many cameras at the same time, and one of those images is selected by the program director and transmitted to your TV. If all the filmed images were transmitted to your TV you would be able to select the camera image you want. Some DVD discs are recorded with the angles of more than one camera used for filming, and these can be selected using this player. These types of discs are called multi-angle discs.

Optical digital output

Normally, audio is converted to an electric signal and transmitted through an electric wire from the player to the amplifier, etc. Changing this signal to a digital signal and transmitting it through an fiber-optic cable is called optical digital output. Similarly, optical digital input receives digital signals from external units such as an AV amplifier or receiver.

Parental lock level

This function was suggested by parents concerned about what type of media their children were able to watch. Parental lock restrictions are restrictions incorporated into titles which include scenes that parents may not wish their children to view.

PCM

PCM stands for Pulse Code Modulation and is digital audio. The digital audio of CDs is PCM. This player also has a function that converts Dolby Digital and MPEG digital bitstreams into PCM to enable you to listen to quality digital sound even without a special decoder.

Playback Control (PBC)

This refers to signals recorded on a Video CD (Version 2.0) enabling playback control.

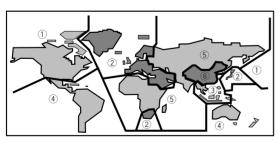
You can use menus recorded on discs with PBC for easy, interactive search for desired scenes, and playback.

You can also enjoy viewing high-resolution/standard resolution still images.

Regional restriction codes (region number)

Regional restriction codes are built in to DVD players and DVD discs for each sales region. If the regional code of the DVD player does not match one of the regional codes of the DVD disc, playback is not possible.

The region number can be found on the rear panel of the DVD player. The illustration below shows the regions and corresponding region numbers.



Sampling Frequency

When a sound wave is converted to a digital signal, the sound is sampled and converted to data at a specific frequency rate. For example, a signal with a 96 kHz sampling rate indicates that in one second, the analog signal was sampled 96000 times to produce the digital signal.

Subtitle

Subtitles are language titles superimposed on movies, or other media. Up to 32 different subtitle languages can be recorded on a DVD disc. The subtitle function can be used to select the language of your choice.

S-video

Connecting the S-video output on the player to a TV or monitor with S-video input via an S-video cable produces clearer picture reproduction by sending separate signals for the luminance and the color. These signals are then combined by the television to produce a better quality picture.

System control

When you connect this player via a cord with a mini plug to another Pioneer component such as a receiver or an amplifier bearing the () mark, you can control the player as though it were a component in a system. To control the player, point the player's remote control at the component that the player is connected to, and not the player itself.

Time number

The time number corresponds to the elapsed playback time of a disc from its beginning. When using the time search function, use the time number to locate scenes that occur at the time selected.

Title number

DVD discs are divided into units referred to as titles, and titles are divided into chapters. Menu screens do not belong to any title. A disc which contains a movie may have only one title with many or no chapter divisions. Karaoke discs may have many titles, assigning a title to each song on the disc.

TOC

TOC (Table Of Contents) information is data other than audio signal data, recorded at the beginning of a disc. As the name implies, it's like the list of contents in a book, with information such as the number of songs and playback time.

ADDITIONAL INFORMATION

Specifications

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General
System DVD system and Compact Disc digital audio system
Power requirements
U.S. and Canadian models AC 120 V, 60 Hz
Other model AC 110-127, 220-240 V, 50/60 Hz
Power consumption
U.S. and Canadian models 13 W
Other models 13 W
Power consumption in standby mode
U.S. and Canadian models 0.7 W
Other models
Weight
Dimensions
$(16^{9}/_{16} \text{ (W)} \times 11^{-1}/_{4} \text{ (D)} \times 4 \text{ (H) in.)}$
(Not including protruding cables, etc.)
Operating temperature +5°C to +35°C (+36°F to +96°F)
Operating humidity 5% to 85% (no condensation)
S-Video output
Y (luminance) - Output level 1 Vp-p (75 Ω)
C (color) - Output level 286 mVp-p (75 Ω)
Jacks S-VIDEO jack
•
Video output
Output level
Jacks RCA jack
Jacks ROA jack
Component video output
(Y, P_B, P_R)
Output levelΥ: 1.0 Vp-p (75 Ω)
P _B , P _R : 0.7 Vp-p (75 Ω)
Jacks RCA jacks
Audio output
Output level
During audio output 200 mVrms (1 kHz, –20 dB)
Number of channels
Jacks RCA jacks
,
Divided and in absorbanishing
Digital audio characteristics
Frequency response 4 Hz to 44 kHz (DVD fs: 96 kHz)
S/N ratio
Dynamic range
Total harmonic distortion
Wow and flutter Limit of measurement
(±0.001% W. PEAK) or lower
Digital output

Optical digital output Optical digital jack
Coaxial digital output RCA jack

Other terminals

CONTROL IN Minijack (3.5 Ø)
Accessories
Remote control unit1
AA (R6P) dry cell batteries2
Audio cord1
Video cord1
Power cord (except for U.S. and Canadian models) 1
Operating Instructions1

Note

The specifications and design of this product are subject to change without notice, due to improvement.





Dear Customer:

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion-and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- · Start your volume control at a low setting.
- · Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

· Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

We Want You Listening For A Lifetime

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association's i

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Consum	er Electronics Group recommend you avoid prolonged
exposur	e to excessive noise. This list of sound levels is
included	l for your protection.
	, 1
Decibel	
Level	Example
30	Quiet library, soft whispers

- 40 Living room, refrigerator, bedroom away from traffic
- 50 Light traffic, normal conversation, quiet office
- 60 Air conditioner at 20 feet, sewing machine
- 70 Vacuum cleaner, hair dryer, noisy restaurant
- Average city traffic, garbage disposals, alarm clock at two feet.

THE FOLLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE

- 90 Subway, motorcycle, truck traffic, lawn mower
- 100 Garbage truck, chain saw, pneumatic drill
- Rock band concert in front of speakers, thunderclap 120
- 140 Gunshot blast, jet plane
- 180 Rocket launching pad

Information courtesy of the Deafness Research Foundation.





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